

IN THE CLAIMS

For the convenience of the Examiner, all pending claims of the present Application are shown below whether or not an amendment has been made.

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30. **(Canceled)**

31. **(Currently amended)** A method for supporting data communications comprising:

detecting, without receiving from a mobile unit a registration request ~~to change foreign agents~~, that the mobile unit has entered a geographic area associated with a base transceiver station;

determining, in response to detecting that the mobile unit has entered the geographic area, a home agent for the mobile unit based on a device identifier of the mobile unit;

requesting subscription information from the home agent, wherein the subscription information comprises an internet protocol (IP) address for the mobile unit; and

initiating, by the base transceiver station, registration of a foreign agent with the home agent, wherein the foreign agent is associated with a foreign network, and wherein the registration permits the foreign agent to receive redirect packets from the home agent, the redirect packets containing information for communication to the mobile unit.

32. **(Previously presented)** The method of Claim 31, further comprising receiving the redirect packets in advance of establishing a data-link layer connection with the mobile unit to support a substantially seamless handoff of a data communications session of the mobile unit.

33. **(Previously presented)** The method of Claim 31, wherein the IP address of the mobile unit specifies a network identifier identical to that specified by an IP address of the home agent.

34. **(Previously presented)** The method of Claim 31, wherein initiating registration comprises:

generating, with the base transceiver station, a registration request, the registration request comprising the IP address of the mobile unit and an IP address of the foreign agent; and

transmitting the registration request to the home agent.

35. **(Previously presented)** The method of Claim 34, wherein the redirect packets are addressed to the IP address of the foreign agent and each of the redirect packets comprise, as a payload, a data packet addressed to the IP address of the mobile unit.

36. **(Previously presented)** The method of Claim 35, further comprising receiving the redirect packets, extracting the data packets from the redirect packets, and communicating the data packets to the mobile unit.

37. **(Previously presented)** The method of Claim 31, wherein the device identifier is at least one of a mobile identification number (MIN) assigned to the mobile unit and an equipment serial number (ESN) assigned to the mobile unit.

38. **(Currently amended)** A communications system comprising:

- a mobile unit having an internet protocol (IP) address corresponding to a home network;
- a home agent in the home network, the home agent operable to register foreign agents to receive redirect packets containing information for delivery to the mobile unit and to communicate the redirect packets to registered foreign agents;
- a base transceiver station in a foreign network operable to:
 - detect, without receiving from the mobile unit a registration request ~~to change foreign agents~~, that the mobile unit has entered a geographic area associated with the base transceiver station;
 - identify, in response to detecting that the mobile unit has entered the geographic area, the home agent based on a device identifier of the mobile unit;
 - request subscription information from the home agent, the subscription information comprising the IP address of the mobile unit; and
 - initiate registration of a foreign agent with the home agent based on the subscription information, the foreign agent associated with the foreign network; and
- the foreign agent operable after registration of the foreign agent to receive the redirect packets, and to communicate information from the redirect packets to the mobile unit using the base transceiver station.

39. **(Previously presented)** The communications system of Claim 38, wherein the foreign agent registers with the home agent in advance of establishment of a data-link layer connection between the mobile unit and the base transceiver station to support a substantially seamless handoff of a data communications session of the mobile unit to the base transceiver station.

40. **(Previously presented)** The communications system of Claim 38, wherein the base transceiver station is operable to initiate registration by:

- generating a registration request, the registration request comprising the IP address of the mobile unit and an IP address of the foreign agent; and
- transmitting the registration request to the home agent.

41. **(Previously presented)** The communications system of Claim 40, wherein the redirect packets are addressed to the IP address of the foreign agent and each of the redirect packets comprise, as a payload, a data packet addressed to the IP address of the mobile unit.

42. **(Previously presented)** The communications system of Claim 38, wherein the home agent receives data packets for delivery to the mobile unit and encapsulates the data packets within the redirect packets.

43. **(Previously presented)** The communications system of Claim 42, wherein the foreign agent is further operable to receive the redirect packets, to extract the data packets from the redirect packets, and to communicate the data packets to the base transceiver station for transmission to the mobile unit.

44. **(Currently amended)** A base transceiver station comprising:
a wireless interface operable to receive a device identifier from a mobile unit;
a processor operable to:
detect, without receiving from the mobile unit a registration request ~~to change foreign agents~~, that the mobile unit has entered a geographic area associated with the base transceiver station;
determine, in response to detecting at the base transceiver station that the mobile unit has entered the geographic area, a home agent for the mobile unit based on the device identifier;
request subscription information from the home agent, wherein the subscription information comprises an internet protocol (IP) address for the mobile unit; and
initiate registration of a foreign agent with the home agent, wherein the foreign agent is associated with a foreign network and the registration permits the foreign agent to receive redirect packets from the home agent, the redirect packets containing information for communication to the mobile unit.

45. **(Previously presented)** The base transceiver station of Claim 44, further comprising a network interface operable to receive the redirect packets in advance of establishing a data-link layer connection with the mobile unit to support a substantially seamless handoff of a data communications session of the mobile unit.

46. **(Previously presented)** The base transceiver station of Claim 44, wherein the IP address of the mobile unit specifies a network identifier identical to that specified by an IP address of the home agent.

47. **(Previously presented)** The base transceiver station of Claim 44, wherein the processor is operable to initiate registration by:
generating a registration request, the registration request comprising the IP address of the mobile unit and an IP address of the foreign agent; and
transmitting the registration request to the home agent.

48. **(Previously presented)** The base transceiver station of Claim 47, wherein the redirect packets are addressed to the IP address of the foreign agent and each of the redirect packets comprise, as a payload, a data packet addressed to the IP address of the mobile unit.

49. **(Previously presented)** The base transceiver station of Claim 48, further comprising a network interface operable to receive the redirect packets; and wherein the processor is further operable to extract the data packets from the redirect packets and to communicate the data packets to the mobile unit using the wireless interface.

50. **(Previously presented)** The base transceiver station of Claim 44, wherein the device identifier is at least one of a mobile identification number (MIN) assigned to the mobile unit and an equipment serial number (ESN) assigned to the mobile unit.

51. **(Currently amended)** A base transceiver station comprising:

means for detecting, without receiving from a mobile unit a registration request ~~to change foreign agents~~, that the mobile unit has entered a geographic area associated with a base transceiver station;

means for determining, in response to detecting at the base transceiver station that the mobile unit has entered the geographic area, a home agent for the mobile unit based on a device identifier of the mobile unit;

means for requesting subscription information from the home agent, wherein the subscription information comprises an internet protocol (IP) address for the mobile unit; and

means for initiating registration of a foreign agent with the home agent, wherein the foreign agent is associated with a foreign network, and wherein the registration permits the foreign agent to receive redirect packets from the home agent, the redirect packets containing information for communication to the mobile unit.

52. **(Previously presented)** The base transceiver station of Claim 51, further comprising means for receiving the redirect packets in advance of establishing a data-link layer connection with the mobile unit to support a substantially seamless handoff of a data communications session of the mobile unit.

53. **(Previously presented)** The base transceiver station of Claim 51, wherein the means for initiating registration comprises:

means for generating a registration request, the registration request comprising the IP address of the mobile unit and an IP address of the foreign agent; and

means for transmitting the registration request to the home agent.

54. **(Previously presented)** The base transceiver station of Claim 53, wherein the redirect packets are addressed to the IP address of the foreign agent and each of the redirect packets comprise, as a payload, a data packet addressed to the IP address of the mobile unit.

55. **(Previously presented)** The base transceiver station of Claim 54, further comprising means for receiving the redirect packets, means for extracting the data packets from the redirect packets, and means for communicating the data packets to the mobile unit.

56. **(Currently amended)** Logic for supporting data communications, the logic encoded in media and operable to:

detect, without receiving from a mobile unit a registration request ~~to change foreign agents~~, that the mobile unit has entered a geographic area associated with a base transceiver station;

determine, in response to detecting at the base transceiver station that the mobile unit has entered the geographic area, a home agent for the mobile unit based on a device identifier of the mobile unit;

request, by a base transceiver station, subscription information from the home agent, wherein the subscription information comprises an internet protocol (IP) address for the mobile unit; and

initiate, at the base transceiver station, registration of a foreign agent with the home agent, wherein the foreign agent is associated with a foreign network, and wherein the registration permits the foreign agent to receive redirect packets from the home agent, the redirect packets containing information for communication to the mobile unit.

57. **(Previously presented)** The logic of Claim 56, further operable to receive the redirect packets in advance of establishing a data-link layer connection with the mobile unit to support a substantially seamless handoff of a data communications session of the mobile unit.

58. **(Previously presented)** The logic of Claim 56, wherein the logic is further operable to initiate registration by:

generating, at the base transceiver station, a registration request, the registration request comprising the IP address of the mobile unit and an IP address of the foreign agent; and

transmitting the registration request to the home agent.

59. **(Previously presented)** The logic of Claim 58, wherein the redirect packets are addressed to the IP address of the foreign agent and each of the redirect packets comprise, as a payload, a data packet addressed to the IP address of the mobile unit.

60. **(Previously presented)** The logic of Claim 59, further operable to receive the redirect packets, to extract the data packets from the redirect packets, and to communicate the data packets to the mobile unit.

61. **(Currently amended)** A method for supporting data communications comprising:

detecting, ~~without a mobile unit determining that the mobile unit has entered a geographic area associated with a base~~ at a base transceiver station, that a mobile ~~the mobile~~ unit has entered a geographic ~~the geographic~~ area associated with the base transceiver station, wherein the mobile unit is not capable of determining that the mobile unit has moved between geographic areas associated with different base transceiver stations;

determining, in response to detecting that the mobile unit has entered the geographic area, a home agent for the mobile unit based on a device identifier of the mobile unit;

requesting subscription information from the home agent, wherein the subscription information comprises an internet protocol (IP) address for the mobile unit; and

initiating, by the base transceiver station, registration of a foreign agent with the home agent, wherein the foreign agent is associated with a foreign network, and wherein the registration permits the foreign agent to receive redirect packets from the home agent, the redirect packets containing information for communication to the mobile unit.

62. **(Previously presented)** The method of Claim 61, further comprising receiving the redirect packets in advance of establishing a data-link layer connection with the mobile unit to support a substantially seamless handoff of a data communications session of the mobile unit.

63. **(Previously presented)** The method of Claim 61, wherein the IP address of the mobile unit specifies a network identifier identical to that specified by an IP address of the home agent.

64. **(Previously presented)** The method of Claim 61, wherein initiating registration comprises:

generating, with the base transceiver station, a registration request, the registration request comprising the IP address of the mobile unit and an IP address of the foreign agent;
and

transmitting the registration request to the home agent.

65. **(Previously presented)** The method of Claim 64, wherein the redirect packets are addressed to the IP address of the foreign agent and each of the redirect packets comprise, as a payload, a data packet addressed to the IP address of the mobile unit.

66. **(Previously presented)** The method of Claim 65, further comprising receiving the redirect packets, extracting the data packets from the redirect packets, and communicating the data packets to the mobile unit.

67. **(Previously presented)** The method of Claim 61, wherein the device identifier is at least one of a mobile identification number (MIN) assigned to the mobile unit and an equipment serial number (ESN) assigned to the mobile unit.

68. **(Currently amended)** A communications system comprising:

- a mobile unit having an internet protocol (IP) address corresponding to a home network, wherein the mobile unit is not capable of determining that the mobile unit has moved between geographic areas associated with a different base transceiver stations;
- a home agent in the home network, the home agent operable to register foreign agents to receive redirect packets containing information for delivery to the mobile unit and to communicate the redirect packets to registered foreign agents;
- a base transceiver station in a foreign network operable to:
 - detect, ~~without the mobile unit determining that the mobile unit has entered a geographic area associated with the base transceiver station,~~ that the mobile unit has entered the geographic area associated with the base transceiver station;
 - identify, in response to detecting that the mobile unit has entered the geographic area, the home agent based on a device identifier of the mobile unit;
 - request subscription information from the home agent, the subscription information comprising the IP address of the mobile unit; and
 - initiate registration of a foreign agent with the home agent based on the subscription information, the foreign agent associated with the foreign network; and
- the foreign agent operable after registration of the foreign agent to receive the redirect packets, and to communicate information from the redirect packets to the mobile unit using the base transceiver station.

69. **(Previously presented)** The communications system of Claim 68, wherein the foreign agent registers with the home agent in advance of establishment of a data-link layer connection between the mobile unit and the base transceiver station to support a substantially seamless handoff of a data communications session of the mobile unit to the base transceiver station.

70. **(Previously presented)** The communications system of Claim 68, wherein the base transceiver station is operable to initiate registration by:

generating a registration request, the registration request comprising the IP address of the mobile unit and an IP address of the foreign agent; and
transmitting the registration request to the home agent.

71. **(Previously presented)** The communications system of Claim 70, wherein the redirect packets are addressed to the IP address of the foreign agent and each of the redirect packets comprise, as a payload, a data packet addressed to the IP address of the mobile unit.

72. **(Previously presented)** The communications system of Claim 68, wherein the home agent receives data packets for delivery to the mobile unit and encapsulates the data packets within the redirect packets.

73. **(Previously presented)** The communications system of Claim 72, wherein the foreign agent is further operable to receive the redirect packets, to extract the data packets from the redirect packets, and to communicate the data packets to the base transceiver station for transmission to the mobile unit.

74. **(Currently amended)** A base transceiver station comprising:
a wireless interface operable to receive a device identifier from a mobile unit;
a processor operable to:

detect, ~~without the mobile unit determining that the mobile unit has entered a geographic area associated with a base~~ at the base transceiver station, that the mobile unit has entered the geographic area associated with the base transceiver station, wherein the mobile unit is not capable of determining that the mobile unit has moved between geographic areas associated with different base transceiver stations;

determine, in response to detecting at the base transceiver station that the mobile unit has entered the geographic area, a home agent for the mobile unit based on the device identifier;

request subscription information from the home agent, wherein the subscription information comprises an internet protocol (IP) address for the mobile unit; and

initiate registration of a foreign agent with the home agent, wherein the foreign agent is associated with a foreign network and the registration permits the foreign agent to receive redirect packets from the home agent, the redirect packets containing information for communication to the mobile unit.

75. **(Previously presented)** The base transceiver station of Claim 74, further comprising a network interface operable to receive the redirect packets in advance of establishing a data-link layer connection with the mobile unit to support a substantially seamless handoff of a data communications session of the mobile unit.

76. **(Previously presented)** The base transceiver station of Claim 74, wherein the IP address of the mobile unit specifies a network identifier identical to that specified by an IP address of the home agent.

77. **(Previously presented)** The base transceiver station of Claim 74, wherein the processor is operable to initiate registration by:

generating a registration request, the registration request comprising the IP address of the mobile unit and an IP address of the foreign agent; and
transmitting the registration request to the home agent.

78. **(Previously presented)** The base transceiver station of Claim 77, wherein the redirect packets are addressed to the IP address of the foreign agent and each of the redirect packets comprise, as a payload, a data packet addressed to the IP address of the mobile unit.

79. **(Previously presented)** The base transceiver station of Claim 78, further comprising a network interface operable to receive the redirect packets; and wherein the processor is further operable to extract the data packets from the redirect packets and to communicate the data packets to the mobile unit using the wireless interface.

80. **(Previously presented)** The base transceiver station of Claim 74, wherein the device identifier is at least one of a mobile identification number (MIN) assigned to the mobile unit and an equipment serial number (ESN) assigned to the mobile unit.

81. **(Currently amended)** A base transceiver station comprising:

means for detecting, ~~without a mobile unit determining that the mobile unit has entered a geographic area associated with a base~~ at the base transceiver station, that ~~the mobile~~ a mobile unit has entered ~~the geographic~~ a geographic area associated with the base transceiver station, wherein the mobile unit is not capable of determining that the mobile unit has moved between geographic areas associated with different base transceiver stations;

means for determining, in response to detecting at the base transceiver station that the mobile unit has entered the geographic area, a home agent for the mobile unit based on a device identifier of the mobile unit;

means for requesting subscription information from the home agent, wherein the subscription information comprises an internet protocol (IP) address for the mobile unit; and

means for initiating registration of a foreign agent with the home agent, wherein the foreign agent is associated with a foreign network, and wherein the registration permits the foreign agent to receive redirect packets from the home agent, the redirect packets containing information for communication to the mobile unit.

82. **(Previously presented)** The base transceiver station of Claim 81, further comprising means for receiving the redirect packets in advance of establishing a data-link layer connection with the mobile unit to support a substantially seamless handoff of a data communications session of the mobile unit.

83. **(Previously presented)** The base transceiver station of Claim 81, wherein the means for initiating registration comprises:

means for generating a registration request, the registration request comprising the IP address of the mobile unit and an IP address of the foreign agent; and

means for transmitting the registration request to the home agent.

84. **(Previously presented)** The base transceiver station of Claim 83, wherein the redirect packets are addressed to the IP address of the foreign agent and each of the redirect packets comprise, as a payload, a data packet addressed to the IP address of the mobile unit.

85. **(Previously presented)** The base transceiver station of Claim 84, further comprising means for receiving the redirect packets, means for extracting the data packets from the redirect packets, and means for communicating the data packets to the mobile unit.

86. **(Currently amended)** Logic for supporting data communications, the logic encoded in media and operable to:

detect, ~~without a mobile unit determining that the mobile unit has entered a geographic area associated with a base~~ at a base transceiver station, that a mobile the mobile unit has entered a geographic the geographic area associated with the base transceiver station, wherein the mobile unit is not capable of determining that the mobile unit has move between geographic areas associated with different base transceiver stations;

determine, in response to detecting at the base transceiver station that the mobile unit has entered the geographic area, a home agent for the mobile unit based on a device identifier of the mobile unit;

request, by a base transceiver station, subscription information from the home agent, wherein the subscription information comprises an internet protocol (IP) address for the mobile unit; and

initiate, at the base transceiver station, registration of a foreign agent with the home agent, wherein the foreign agent is associated with a foreign network, and wherein the registration permits the foreign agent to receive redirect packets from the home agent, the redirect packets containing information for communication to the mobile unit.

87. **(Previously presented)** The logic of Claim 86, further operable to receive the redirect packets in advance of establishing a data-link layer connection with the mobile unit to support a substantially seamless handoff of a data communications session of the mobile unit.

88. **(Previously presented)** The logic of Claim 86, wherein the logic is further operable to initiate registration by:

generating, at the base transceiver station, a registration request, the registration request comprising the IP address of the mobile unit and an IP address of the foreign agent; and

transmitting the registration request to the home agent.

89. **(Previously presented)** The logic of Claim 88, wherein the redirect packets are addressed to the IP address of the foreign agent and each of the redirect packets comprise, as a payload, a data packet addressed to the IP address of the mobile unit.

90. **(Previously presented)** The logic of Claim 89, further operable to receive the redirect packets, to extract the data packets from the redirect packets, and to communicate the data packets to the mobile unit.